U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-289 696

Municipal Wastewater Treatment Works Construction Grants Program Supplement Number 5

(U.S.) Environmental Protection Agency, Washington, DC

Mar 78

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

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16. ABSTRACT

This Handbook contains the replacement pages and policy directives after the Manual of References (MCD-02) was published. This represents the fifth in a series of Program Requirements Memoranda.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Water Pollution Control	Handbook of Procedures Updating	

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS *(This Report)*	21. NO. OF PAGES 49
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Municipal Wastewater Treatment Works Construction Grants Program

References

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Regulations ·Guidance ·Procedures

CLEAN WATER

United States Environmental Protection Agency
Washington, D.C. 20460

MCD 02.5

TO HOLDERS OF THE UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

MANUAL OF REFERENCES - MCD-02:

PLEASE FILE THE ATTACHED CONSTRUCTION GRANTS PROGRAM REQUIREMENTS MEMORANDA 77-9, 78-1, 78-2, 78-3, 78-4, 78-5, 78-6, 78-7, 78-8, 78-9 and 78-10 IN SECTION II OF THE MANUAL.

(ALSO ATTACHED IS A REVISED FOURTH PAGE FOR THE TABLE OF CONTENTS.)

Memoranda		Former Designation
PRM 75-36	Value Engineering in the EPA Construction Grants Program	PG-63
PRM 75-37	User Charge System: Plan and Schedule	PG-65
PRM 75-38	Relationship Between 201 Facility Planning and Water Quality Management (WQM) Planning	PG-66
PRM 75-39	Eligibility of Land Acquisition Costs for the Ultimate Disposal of Residues from Wastewater Treatment Processes	PG-67
PRM 75-40	Priority List Supplement to FY 1977 Construction Grants Guidance	PG-68
PRM 76-1	Construction Grants Program Issuances	
PRM 76-2	Cancellation of Certain Program Guidance Memoranda (PGM)	
PRM 76-3	Presentation of Local Government Costs of Wastewater Treatment Works in Facility Plans	
PRM 76-4	Coordination of Construction Grants Program with EPA-Corps of Engineers Section 404/Section 10 Permit Programs	
PRM 76-5	Flood Insurance Requirements	
PRM 77-1	Treatment Works for Recreational Parks, Industrial Parks, and Institutions	
PRM 77-2	Grant Eligibility of Start-up Services	
PRM 77-3	Plan of Operation for Municipal Wastewater Treatment Facilities	
PRM 77-4	Cost Allocations for Multiple Purpose Projects	
PRM 77-5	Grant Eligibility of Land Acquisition by Leasehold or Easements for Use in Land Treatment and Ultimate Disposal of Residues	
PRM 77-6	Easements	

Memoranda

PRM 77-7	Management of State Project Priority Lists
PRM 77-8	Funding of Sewage Collection System Projects
PRM 77-9	Reallotment of Recovered Funds
PRM 78-1	Erosion & Sediment Control in the Construction Grants Program
PRM 78-2	Discount Rate
PRM 78-3	"Buy American"
PRM 78-4	Grant Eligibility of Land Acquired for Storage in Land Treatment Systems
PRM 78-5	Interim Management of FY 1978 State Priority Lists Under the 1977 Amendments
PRM 78-6	Industrial Cost Recovery - Interim Guidance
PRM 78-7	Combined Step 2/3 Construction Grant Awards
PRM 78-8	Rejection of All Bids: Guidance for E.P.A. Concurrence Function
PRM 78-9	Funding of Sewage Collection System Projects
PRM 78-10	Infiltration/Inflow Program Guidance

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 05 1977

OFFICE OF WATER AND
HAZARDOUS MATERIALS

Program Requirements Memorandum
PRM 77-9

SUBJECT: Reallotment of Recovered Funds

FROM: John T. Rhett, Deputy Assistant Administrator
for Water Program Operations (WH-546)

Matthew Pilzys, Acting Deputy Assistant Administrator
for Resources Management (PM-224)

TO: Regional Administrators (I-X)
ATTN: Water Division Directors
Management Division Directors

PURPOSE:

The purpose of this memorandum is to set forth EPA policy regarding the reallotment of funds recovered from P.L. 92-500 authorizations and subsequent appropriations.

DISCUSSION:

Unobligated portions of State allotments are, at the end of their initial allotment periods, subject to reallotment as provided for in section 205(b)(1) of P.L. 92-500 and 40 CFR 35.910-2(a) and (b). However, the extent to which recoveries are subject to reallotment after the termination date of an initial allotment period is not as clearly defined. Section 205(b)(2) states that recovered obligations which are "released by the payment of the final voucher for the project shall be immediately credited to the State to which such sums were last allotted. Such released sums shall be added to the amounts last allotted to such State and shall be immediately available for obligation in the same manner and to the same extent as such last allotment." Hence, funds recovered upon the closeout of a project (on or after final payment) are subject to reallotment after the termination date of the most recent allotment in effect at the time of the closeout. Funds recovered as a result of the termination of a project are treated in the same manner.

Neither the Act nor the regulations address the reallotment of other recoveries, such as those resulting from underruns or descoping--i.e., recovered obligations other than those which "remain after final payment, or after termination of a project" (§35.910-2(c)).

Over the years of operating the construction grants program, it was common practice to treat all recoveries alike, and to have them remain in the States to which they were originally allotted. Distinctions were not made between those resulting from project closeouts and those resulting from actions taken by EPA due to changes occurring in the process of constructing a project. However, because of the explicit requirement of section 205(b)(2), that practice must be modified.

The date of the most recent allotment of funds is important for the reallotment process. $1 billion was allotted on May 18, 1977, and, in accordance with the Fiscal Year 1977 Supplemental Appropriations Act, is subject to reallotment after May 3, 1980, three years after the date of enactment. (The $480 million appropriated under the Public Works Employment Act will not be treated as an allotment for these purposes.)

POLICY:

FY-75, 74 and 73 funds which the Regional Administrator determines were recovered prior to May 18, 1977, as a result of the closing out of projects--i.e., at final payment or upon termination--will be subject to reallotment after September 30, 1977--the reallotment date of the $9 billion allotted in FY-76. All other FY-75, 74 and 73 funds which were recovered prior to May 18, 1977, will not be subject to reallotment on September 30, 1977.

The foregoing policy is applicable only to the September 30, 1977 reallotment. However, if the currently proposed legislation to extend for another year the reallotment date for FY-76 funds is enacted, the above policy will be applicable to the extended date, i.e., September 30, 1978 instead of September 30, 1977.

For future fiscal years, a distinction will not be made between recoveries resulting from project closeouts or terminations and those resulting from underruns or descoping. Accordingly, all recoveries made subsequent to May 17, 1977, regardless of how they are generated, will be subject to reallotment on the basis of the procedure established in §205(b)(2) of the Act. Therefore, funds recovered from May 18, 1977, until the date of the next allotment of funds, will be subject to reallotment after May 3, 1980.

When further funds are allotted, recoveries thereafter will be subject to the reallotment date of those funds. That is, the reallotment date for recoveries always relates to the most recent allotment.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 29 1977

Construction Grants
Program Requirements Memorandum
PRM No. 78-1

SUBJECT: Erosion and Sediment Control in the Construction Grants Program

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Regional Administrators (I-X)
ATTN: Water Division Directors

Purpose:

This memorandum establishes the policy pertaining to the requirements and procedures for controlling erosion and sediment runoff caused by the construction activity of projects funded under the EPA Construction Grants Program.

While engineering and agronomic practices for erosion and sediment control are site specific, detailed information pertaining to these practices can be found in a number of publications, including those listed in Attachment B. This memorandum provides guidelines and general principles to be used in preparing facilities plans and project design specifications and in conducting project inspections.

Discussion:

Problems associated with erosion and sediment loads resulting from construction activity have long been recognized. Erosion and subsequent excess sediment runoff are among the major factors directly responsible for nonpoint source pollution in streams and lakes. Additional problems which can occur include clogging of streams and lakes, alteration of natural habitats, and damage to the aesthetics of surface waters.

The on-going EPA construction grants program will continue to generate significant construction activity throughout the country. Ensuring that erosion and sediment control are properly handled in the process of constructing these waste treatment projects is part of EPA's overall responsibility. In December 1976, the Office of Water Planning and Standards published a report entitled "Nonpoint Source Control Guidance, Construction Activities." The document is to be used by States and areawide 208 agencies as a guide for establishing a nonpoint source pollution control program.

EPA policy is designed to ensure that:

1. Erosion and sediment control will be adequately addressed and handled in areas where wastewater treatment projects are proposed.

2. Appropriate soil conservation measures are incorporated as part of the engineering activities in the planning and design process, as well as the construction phase of construction grant projects.

Policy:

1. Facilities planning (Step 1) - Good environmental assessment or impact studies should investigate and evaluate the potential for erosion and sediment runoff which could occur as a result of construction and operation of the project. An effective erosion and sediment runoff control program should address measures to be taken during construction and, where appropriate, permanent controls to be incorporated into the completed project. Other factors being equal, sites chosen for construction of treatment facilities should be those which offer the least potential for erosion.

   In environmentally sensitive areas (floodplains, wetlands, coastal zones and estuaries, etc.), special construction procedures and requirements should be employed to minimize harm to the sensitive areas. All practicable measures should be utilized. When applicable, the requirements described in PRM 76-4 (Coordination of Construction Grants Program with EPA-Corps of Engineers Section 404/Section 10 Permit Programs) must also be implemented in conjunction with the erosion and sediment control program.

   Wherever State and local ordinances pertaining to construction activities are adequately defined, the grantee should clearly specify in the facilities plan, steps to be taken for controlling erosion and sediment in order to comply with the State and local ordinances. However, the evaluation of the adequacy of a project's erosion and sediment control plan should be based on the attached guidelines.

2. Design (Step 2) - Appropriate provisions of the erosion and sediment control program specified in the facilities plan should be implemented including: (a) scheduling construction activities to minimize adverse impacts; (b) providing plans and specifications for any permanent and temporary erosion control structures and; (c) including specific erosion and sediment control measures in O&M manuals. The construction specifications will require implementation of the specified erosion control plan during construction of the project.

3. Construction (Step 3) - Inspections conducted during construction should evaluate implementation of and adherence to temporary erosion and sediment control measures and their effectiveness. Attention should also be given to permanent erosion control structures during final inspections.

Detailed guidance to be used in evaluating erosion and sediment control aspects of construction grant projects, including a pertinent list of references, is attached.

Implementation:

The measures specified in this memorandum and its attachments are required for all projects resulting from Step 1 grants awarded after the date of this memorandum. Appropriate provisions for erosion and sediment control should be incorporated to the maximum extent practicable in other active construction grant projects. For example, Step 2 and Step 3 measures should be applicable to those presently active Step 2 and Step 3 grant projects respectively.

Attachments

Attachment A

Evaluation of Erosion and Sediment Control Measures

The objective of the program is to prevent and correct problems associated with erosion and sediment runoff processes which could occur during and after project construction. The program should be consistent with applicable local ordinances and the EPA Nonpoint Source Pollution Control Guidance. Whenever appropriate, the program should reflect the following engineering principles.

1. Construction site selection should consider potential occurrence of erosion and sediment losses. Study of the site conditions should include soil and geologic limitations, topography, vegetation, wildlife habitats, proximity to surface water, and climate.

2. The project plan and layout should be designed to fit the local topography and soil conditions.

3. When appropriate, land grading and excavating should be kept at a minimum to reduce the possibility of creating runoff and erosion problems which require extensive control measures.

4. Whenever possible, topsoil should be removed and stockpiled before grading begins.

5. Land exposure should be minimized in terms of area and time.

6. Exposed areas subject to erosion should be covered as quickly as possible by means of mulching or vegetation.

7. Natural vegetation should be retained whenever feasible.

8. Appropriate structural or agronomic practices to control runoff and sedimentation should be provided during and after construction.

9. Early completion of stabilized drainage system (temporary and permanent systems) will substantially reduce erosion potential.

10. Roadways and parking lots should be paved or otherwise stabilized as soon as feasible.

11. Clearing and grading should not be started until a firm construction schedule is known and can be effectively coordinated with the grading and clearing activity.

Because of technical limitations, it is recognized that the foregoing principles cannot always be incorporated in a project plan. Whenever needed, however, these practices should be included.

Minimum Requirements

In addition to the general engineering principles described in the previous paragraph, the following items represent the minimum engineering effort to be incorporated in development of the project.

1. Facility Planning (Step 1)

As part of the environmental assessment or environmental impact study, the potential for erosion and sediment runoff should be identified and evaluated. In determining the scope of the study, the following items should be considered and evaluated where appropriate:

- Soil and geologic characteristics
- Land topography and land use classification
- Drainage basin conditions
- Rainfall or wind characteristics

In environmentally sensitive areas such as floodplains and coastal estuaries, etc., special problems including long slopes, steep grades and highly erodible soils should be identified and evaluated. When appropriate, special construction procedures and constraints associated with these problems should be addressed and incorporated in the plans and specifications. For project sites where dewatering operations are required during construction, adverse effects from the discharge of silt-laden waters should be minimized by means of filtration or sedimentation basins, or any other appropriate methods.

For projects involving land treatment or disposal, methods of application should be carefully studied and selected to make sure that soil erosion and sediment runoff is minimized. In addition, requirements for sediment control practices and their maintenance after construction is completed should be specified.

2. Plans and Specifications (Step 2)

The project plans and specifications should include all structures and practices designed for erosion and sediment control. The plan should be consistent with the general sediment control program set forth in the facilities plan. In addition, the plan should include the following:

a. A schedule for land clearing and grading in relation to the corresponding schedule for each structure to be built. If at all possible, the clearing should immediately precede the construction activity.

b. Specifications for temporary and permanent measures to be used for controlling erosion and sediment including a schedule and specific location for each measure.

c. A separate list containing: (1) chronological completion dates for each temporary and permanent measure for controlling erosion and sediment; (2) location, type and purpose for each measure; and (3) dates when those temporary measures will be removed or replaced. This list will serve as a guide for contractors as well as field inspectors during and after construction.

d. Appropriate maintenance procedures for each sediment control structure should be specified in detail in the operation and maintenance manual required as part of the construction grant.

3. Construction (Step 3)

The State, EPA and other appropriate local, State and Federal agencies should coordinate their efforts to effectively carry out the inspections by using the guide contained in the plans and specifications. The objective of these inspections is not only to ensure compliance, but also to make sure that necessary corrective steps are taken where it is found that (1) sediment control measures originally specified were not adequate, and (2) additional measures are needed for problems not anticipated in the design phase.

Post Construction:

The final project inspection should make sure that all temporary sediment control measures are removed or replaced with permanent measures and all permanent structures are built as specified.

References

1. U.S. Environmental Protection Agency, Nonpoint Source Control Guidance, Construction Activities, U.S. EPA, Office of Water Planning & Standards, Washington, D.C. 20460 (December 1976).

2. U.S. Environmental Protection Agency, Guidelines for Erosion and Sediment Control Planning and Implementation, EPA R27 2015, U.S. Government Printing Office, Washington, D.C. (August 1972).

3. Meyer, L. Donald and Kramer, Larry A., "Erosion Equations Predict Land Slope Development," Agricultural Engineering, Vol. 50, No. 9 (September 1969).

4. Meyer, L.D., "Reducing Sediment Pollution by Erosion Control on Construction Sites," paper presented at Seventh American Water Resources Conference, Washington, D.C. (October 1971).

5. Meyer, L.D., et al., "Erosion Runoff and Revegetation of Denuded Construction Sites," Transactions of the American Society of Agricultural Engineers, Vol. 14, No. 1, St. Joseph, Michigan (1971).

6. Meyer, L.D., et al., "Mulch Rates for Erosion Control on Steep Slopes," Soil Science Society of American Proceedings, Vol. 34, No. 6, Madison, Wisconsin (November/December 1970).

7. Wischmeier, W.H., et al., "A Soil Erodibility Nomograph for Farmland and Construction Sites." Journal of Soil and Water Conservation (September/October 1971).

8. U.S. Environmental Protection Agency, Office of Water Program Operations, Control of Erosion and Sediment Deposition from Construction of Highways and Land Development, U.S. Government Printing Office, Washington, D.C. (1971).

9. U.S. Department of the Interior, Federal Water Quality Administration, Urban Soil Erosion and Sediment Control, U.S. Government Printing Office, Washington, D.C. (1970).

10. U.S. Environmental Protection Agency, Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity, EPA 430/9-73-007, U.S. EPA, Office of Air and Water Programs, Washington, D.C. 20460 (October 1973).

11. U.S. Environmental Protection Agency, Method to Control Fine-Grained Sediments Resulting from Construction Activity, EPA 440/9-76-026, Office of Water Planning and Standards, Washington, D.C. (December 1976).

12. Local Soil and Water Conservation District Technical Guides on file at each Soil Conservation Service Office.

13. U.S. Environmental Protection Agency, Methods of Quickly Vegetating Soils of Low Productivity, Construction Activities, EPA 440/9-75-006, Office of Water Planning and Standards, Washington, D.C. (July 1975).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 26 1978

OFFICE OF WATER AND
HAZARDOUS MATERIALS

Program Requirements Memorandum
PRM No. 78-2

Subject: Discount Rate

From: John T. Rhett, Deputy Assistant Administrator
for Water Program Operations (WH 546)

To: Regional Water Division Directors

Enclosed is a copy of the notice published by the Water Resources Council of the new discount rate of 6 5/8 percent. The new rate was effective as of October 1, 1977. Cost-effectiveness analyses in new facility planning starts are to be based on the rate of 6 5/8 percent.

We have arranged to distribute the enclosed information to consulting engineers through the newsletter of the Consulting Engineers Council. Please distribute copies of this information to the States for use in their programs.

Enclosure

INFO MEMO

U.S. Water Resources Council, 2120 L Street, N.W., Washington, D.C. 20037

NOV 3 1977

USDI	Guy R. Martin	HUD	Robert C. Embry, Jr.
USDA	M. Rupert Cutler	EPA	Tom Jorling
ARMY	Michael Blumenfeld	ENERGY	James L. Liverman
DOT	Owen W. Siler	OMB	Eliot Cutler
FPC	Francis J. Flynn	JUST	James W. Moorman
COMM	Lucy A. Falcone	CEQ	Gus Speth

Subject: Discount Rate and Water Supply Act of 1958 Interest Rate

The interest rate to be used by Federal agencies in the formulation and evaluation of plans for water and related land resources is 6 5/8 percent for the period October 1, 1977, through and including September 30, 1978. Attached for your use and information is the notice of change in the discount rate which is to be forwarded to the Federal Register.

The interest rate determined by the Treasury Department in accordance with the provisions of Section 301(b) of the Water Supply Act of 1958 is 6.063 percent.

Lewis D. Walker
for Leo M. Eisel
Director

Attachment

cc: Chairmen, River Basin Commissions
Chairmen, Inter-Agency Committees
Chairman, Tennessee Valley Authority

United States
Water Resources Council

Principles and Standards for Planning
Water and Related Land Resources

Change in Discount Rate

Notice is hereby given that the interest rate to be used by Federal agencies in the formulation and evaluation of plans for water and related land resources is 6 5/8 percent for the period October 1, 1977, through and including September 30, 1978.

The rate has been computed in accordance with Chapter IV, D., "The Discount Rate" in the "Standards for Planning Water and Related Land Resources" of the Water Resources Council, as amended (39 FR 29242), and is to be used by all Federal agencies in plan formulation and evaluation of water and related land resources projects for the purpose of discounting future benefits and computing costs, or otherwise converting benefits and costs to a common time basis.

The Department of the Treasury on October 14, 1977, informed the Water Resources Council pursuant to Chapter IV, D., (b) that the interest rate would be seven percent based upon the formula set forth in Chapter IV, D., (a): " * * * the average yield during the preceding Fiscal Year on interest-bearing marketable securities of the United States which, at the time the computation is made, have terms of 15 years or more remaining to maturity * * *." However, Chapter IV, D., (a) further provides " * * * [t]hat in no event shall the rate be raised or lowered more than one-quarter of one percent for any year." Since the rate in Fiscal Year 1977 was 6 3/8 percent (41 FR 48010), the rate for Fiscal Year 1978 is 6 5/8 percent.

/s/ Lewis D. Walker
for Leo M. Eisel
Director

Dated:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

17 FEB 1978

OFFICE OF WATER AND HAZARDOUS MATERIALS
Construction Grants
Program Requirement Memorandum
PRM No. 78-3

SUBJECT: Buy American

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Regional Administrators

Section 215 of the Federal Water Pollution Control Act, as amended by section 39 of the Clean Water Act of 1977 (Public Law 95-217) provides that no grant (Step 3 grant), for which application is received by the Regional Administrator after February 1, 1978, shall be made unless preference is given to the use of domestic construction materials in the construction of sewage treatment works (Buy American).

Municipalities applying for Step 3 grants after February 1, 1978, must be notified that the Buy-American provision will apply to procurements under those Step 3 grants. Grant awarding officials must insure that grants awarded prior to amendment of the Construction Grant Regulations include a special condition requiring the grantee to give preference to domestic construction materials pursuant to section 215 of the Federal Water Pollution Control Act, as amended, and EPA implementing regulations and guidelines.

The following guidance is provided to aid in implementation of the Buy American provision. The definitions have been adapted from the current Federal Procurement Regulations which EPA has been directed to follow, where applicable.

"Construction material" means any article, material or supply brought to the construction site for incorporation in the building or work. An unmanufactured construction material is a "domestic construction material" if it has been mined or produced in the United States. A manufactured construction material is a "domestic construction material" if it has been manufactured in the United States substantially all from articles, materials, or supplies mined, produced or manufactured (as the case may be) in the United States. Generally, a construction material is considered a domestic construction material if the cost of its components

which have been mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all of its components. "Component" means any article, material, or supply directly incorporated in a construction material.

A component shall be considered to have been "mined, produced, or manufactured in the United States" (regardless of its source in fact), if the article, material, or supply in which it is incorporated was manufactured in the United States and the component is of a class or kind determined by the Regional Administrator to be not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

Bidding documents for construction work which is funded by a Step 3 grant for which application is made after February 1, 1978, must include the following statement:

INFORMATION REGARDING BUY AMERICAN PROVISION

(a) The Buy American Provision of Public Law 95-217 (section 215 of Public Law 92-500 as amended) as implemented by EPA regulations and guidance, generally requires that preference be given to the use of domestic construction material in the performance of this contract.

(b) Bids or proposals offering use of nondomestic construction material may be acceptable for award if the Regional Administrator waives the Buy American provision based upon those factors that are deemed relevant, including: (i) such use is not in the public interest; (ii) the cost is unreasonable; (iii) the available resources of the Agency are not sufficient to implement the provision; or (iv) the articles, materials, or supplies of the class or kind to be used or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality for the particular project. The Regional Administrator may also waive the Buy American provision if it is determined that application of this provision is contrary to multilateral government procurement agreements. Such evidence as the EPA Regional Administrator may deem relevant shall be furnished to justify use of nondomestic construction material.

Step 3 contracts must include the following paragraph in addition to Appendix C-2:

BUY AMERICAN

In accordance with the Buy American provision in Public Law 95-217 (section 215 of Public Law 92-500 as amended) and implementing EPA regulations and guidelines, the Contractor agrees that preference will be given to domestic construction material by the contractor, subcontractors, materialmen, and suppliers in the performance of this contract.

The Regional Administrator may waive the Buy American provision based upon those factors that are deemed relevant, including: (i) such use is not in the public interest; (ii) the cost is unreasonable; (iii) the available resources of the Agency are not sufficient to implement the provision (subject to the concurrence of the Deputy Administrator); or (iv) the articles, materials, or supplies of the class or kind to be used or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality for the particular project.

If the Regional Administrator believes that application of the Buy American provision would be contrary to multilateral government procurement agreements, the Regional Administrator may request the Deputy Administrator to waive the provision.

The amount of cost differential by which domestic construction material may be given preference shall generally be the sum determined by computing up to six percent of the bid or offered price of materials of foreign origin including all costs of delivery to the construction site, including any applicable duty, whether or not assessed. Computations will normally be based on costs on the date of opening of bids or proposals.

The Regional Administrator may utilize the appropriate procedures of 40 CFR 35.939 in making determinations, and the "Buy-American" procedures, regulations, precedents and requirements of other Federal departments and agencies shall generally be observed.

The Buy American provision is new to the EPA municipal wastewater construction grants program, and no specific EPA precedents exist. To help create such precedents, where it is determined that the Buy American provision should be waived, or when problems or questions arise, it should be brought to the attention of the Director of the Municipal Construction Division and the Assistant General Counsel-Grants.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

17 FEB 1978

Construction Grants
Program Requirements Memorandum
PRM No. 78-4

SUBJECT: Grant Eligibility of Land Acquired for Storage in Land Treatment Systems

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Regional Administrators
Regions I thru X

PURPOSE

This memorandum provides additional guidance concerning grant eligibility of land acquired by purchase, leasing, or easements for use in land treatment systems.

DISCUSSION

The Agency has previously issued three PRM's on acquiring land for use in land treatment of wastewaters and sludges. PRM 75-25 (formerly PGM-49) covers the interpretation of the eligibility of land acquisition costs for land treatment processes (wastewaters). PRM 75-39 (formerly PGM-67) covers the eligibility of land acquisition costs for the ultimate disposal of residues from wastewater treatment processes (sludges). PRM 77-5 covers the eligiblity of leasing or easements in lieu of fee simple purchase for use in either wastewater treatment alternatives or sludge management systems. The Clean Water Act of 1977 (P.L. 95-217) requires changes in Section 35.905-23 (definition of treatment works) and 35.940-3 (costs allowable, if approved) of the construction grants regulations (40 CFR Part 35). These changes in the construction grants regulations require a change in eligibility of land costs as described by PRM 75-25, but do not affect PRM 75-39 or PRM 77-5.

POLICY

The Federal Water Pollution Control Act Amendments of 1977 (P.L. 95-217) make the land that will be used for storage of treated wastewater in land treatment systems prior to land application an eligible cost as of December 27, 1977. Previously, the cost of land for the temporary storage of effluent was not eligible (PRM 75-25). Acquirement of land for storage purposes must be by purchase rather than lease or easement.

There are two approaches for providing temporary storage that will be cost eligible.

1. The cost of land will be eligible for all ponds constructed specifically to meet storage needs due to climate or a seasonal imbalance between wastewater supply and application schedules. The period and total volume of storage provided should be commensurate with the discussion in Section 5.3 (pages 5-30 thru 5-38) of the Design Manual on Land Treatment of Municipal Wastewater (EPA 625/1-77-008). These storage ponds should be designed with the maximum depth appropriate for site conditions.

2. All or part of the land will be eligible for ponds which are constructed for combination treatment and storage purposes if such combination ponds meet the definitions and criteria as listed in (a) through (d) below:

   (a) Storage volume is defined as that portion of the pond designed to provide the total storage needs due to climate or a seasonal imbalance between wastewater supply and application schedules as for (1) above. Storage volume could represent the entire volume of a separate cell or that portion above the treatment volume in a combined treatment/storage cell.

   (b) Treatment volume is that portion of the pond specifically designed for biological stabilization of the wastewater. It may be the entire volume of a treatment cell or the depth below the liquid level that was designed for treatment in a combined treatment/storage cell.

   (c) If the volume provided for storage is greater than the volume provided for treatment in any cell of the pond, then the total land area for that cell is eligible.

   (d) If the volume provided for storage is equal to or less than the volume provided for treatment in any cell of the pond, then the eligible area will be determined as the ratio of the storage volume to the total volume of that cell.

IMPLEMENTING PROCEDURE

The provisions of this program requirements memorandum apply to all projects which had not been given Agency approval of the Step 1 facilities plan as of December 27, 1977. These provisions supplement PRM #75-25, which remains in effect.

REFERENCES

Program Requirements Memorandum 75-25 of July 18, 1975 (formerly PGM-49)
Program Requirements Memorandum 75-39 of April 2, 1975 (formerly PGM-67)
Program Requirements Memorandum 77-5 of December 15, 1976
40 CFR 35.905-23
40 CFR 35.940-3
EPA 625/1-77-008: Land Treatment of Municipal Wastewater

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

17 FEB 1978

Construction Grants
Program Requirements Memorandum
PRM No. 78-5

SUBJECT: Interim Management of FY 1978 State Priority Lists Under the 1977 Amendments

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546) John T Rhett

TO: Regional Administrators

PURPOSE

This memorandum outlines EPA policy concerning annual State project priority list management for the remainder of FY 1978 under the Clean Water Act Amendments of 1977. Except as indicated herein, the policy and procedures for priority list management are still reflected in PRM 77-7, Management of State Project Priority Lists.

BACKGROUND

The Clean Water Act of 1977 included several amendments to P.L. 92-500 that could potentially affect existing State priority systems and State priority list management. The scope of these changes will not be known until interim regulations implementing the priority list provisions are published. The current situation is as follows:

1. The FY 1978 priority lists are the basis for considering project funding through September 30, 1978. Most FY 1978 priority lists, under the $4.5 billion expected appropriation, have been submitted and reviewed by EPA pursuant to the policies and procedures outlined in PRM 77-7. Many FY 1978 lists have been approved or are approvable, pending receipt of the FY 1978 funds.

2. The FY 1978 authorization for $4.5 billion, contained in the 1977 Amendments, has been allotted (subject to appropriation) in accordance with the regulation published in the Federal Register on January 10, 1978. An appropriation of $4.5 billion is expected to be enacted in the next couple of months.

3. Regulations in response to the 1977 Amendments are currently in formulation, and will not be published in interim final form before May, 1978.

4. No projects may be funded using the expected FY 1978 appropriation until a FY 1978 priority list has been approved by the Regional Administrator under current policy and procedures.

POLICY

1. States and Regions are to continue to process grant applications up to the point of grant award for projects which reasonably can be expected to receive grants during FY 78, either because the projects are on or expected to be on an approved or approvable priority list. States may submit but not actually certify the application to EPA for award, however, until funds are available and the priority list approved.

2. Nothing in the 1977 Amendments mandates immediate changes to current State priority planning for the FY 1978 planning year. States may elect to propose changes based on the 1977 Amendments for FY 1978, but should be advised that such changes cannot be considered by EPA until publication of interim regulations in May, 1978. As a general policy, the Regions should follow the procedures for interim management of the FY 1978 priority lists as outlined below:

- For those States with currently approved or approvable FY 78 priority lists, no modification for compliance with the 1977 Amendments is required or expected.

- States which are currently without an approved or approvable FY 1978 priority list should be directed to comply with the State program planning regulations (40 CFR 35.563 through 35.566) and the existing procedures in PRM 77-7 to avoid delay in making awards once funds are made available. The Region should be ready to approve all FY 1978 lists under the existing policy as soon as funds are appropriated. Projects may not be funded in any State in the absence of an approved priority list.

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IMPLEMENTATION

All States should immediately be informed of this interim priority list policy. States should continue to process grant applications as provided above. Guidance on preparation of FY 1979 priority systems and lists under the proposed priority list regulations will be issued by Headquarters no later than May, 1978.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

17 FEB 1978

CONSTRUCTION GRANTS
PROGRAM REQUIREMENTS MEMORANDUM
PRM No. 78-6

SUBJECT: Industrial Cost Recovery--Interim Guidance

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Regional Administrators, Regions I thru X

ATTN: Water Division Directors

I. ISSUE:

This memorandum establishes interim guidance on the implementation of industrial cost recovery (ICR) requirements under the Clean Water Act of 1977.

II. DISCUSSION:

Section 24 of the Clean Water Act exempts from ICR requirements, any industrial user which discharges 25,000 gpd or less of sanitary waste or a volume of process waste, or combined process and sanitary waste equivalent to 25,000 gpd or less, of sanitary waste if the discharge does not contain pollutants which interfere, or are incompatible with, or contaminate, or reduce the utility of sludge. Regardless of any subsequent change in the Act which might lower the volume of discharge exempted from ICR, industrial users exempt under the current law will never be liable for payments which might have been due after December 31, 1977, until a change in the Act. In addition, an ICR system can be based on a system wide approach, instead of being based on each individual project (regulations to be issued in May will provide guidance on this provision).

Section 75 of the Clean Water Act requires EPA to study the efficiency of, and the need for, the payment by industrial users. A report of findings from this study must be submitted to the Congress by December 27, 1978. Until June 30, 1979, EPA can not require grantees to enforce provisions which require industrial users to make ICR payments. Any payment by industrial users which is due after December 31, 1977, but before July 31, 1979, (the moratorium) shall be paid after the moratorium

in accordance with the applicable ICR requirement at that time. The payment may be made in equal annual installments prorated over the remaining useful life of the treatment works.

The Conference Report on section 75 states that:

(1) EPA is to continue to make grants and not to withhold any funding due to failure to comply with current ICR requirements.

(2) The moratorium on ICR payments does not exempt any grantee from the requirement to develop an ICR system.

(3) At the end of the moratorium, if the Congress has not changed the ICR provisions, grantees must begin to collect ICR.

Regulations implementing these sections and detailed guidelines will be issued at a later time, but the following policies are established for immediate use.

III. POLICY:

1. Any grant payments withheld due to ICR requirements shall be released. (However, grant payments being withheld for any other requirements are not to be released.)

2. Grantees should be advised that they are not exempt from the requirement to develop ICR systems during the moratorium, and that the cost of developing the system is grant eligible. Any ICR system approved by the Regional Administrator must exempt users discharging the equivalent of 25,000 gpd or less of sanitary waste.

3. EPA officials shall not require grantees to enforce the payment of ICR by industrial users for the period between December 28, 1977, and June 30, 1979. Grantees may collect ICR from users discharging more than the equivalent of 25,000 gpd of sanitary waste, but no payment to the Federal government shall be made. If grantees choose to collect ICR they shall hold 50 percent (the portion which would be sent to EPA in the absence of a moratorium) of the amounts they collect until June 30, 1979, or until EPA provides disbursement guidance, and shall invest those amounts in accordance with ICR Guidelines.

4. Grantees must continue to monitor industrial users during the moratorium to determine their ICR payment obligation in case ICR payments resume after June 30, 1979.

5. Any ICR due for the grantee's ICR year ending before January 1, 1978, must be collected and disbursed in accordance with current ICR requirements.

IV. IMPLEMENTATION:

These policies are effective retroactive to December 27, 1977.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER AND
HAZARDOUS MATERIALS

17 FEB 1978

Construction Grants
Program Requirements Memorandum
PRM No. 78-7

SUBJECT: Combined Step 2 and Step 3 Construction Grant Awards (Step 2+3)

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Regional Administrators
ATTN: Water Division Directors

I. PURPOSE

This memorandum establishes Agency policy on award of Step 2+3 construction grants during FY 1978 as provided in the Clean Water Act of 1977, prior to the promulgation of regulations implementing the combined grant provisions of the Act.

II. DISCUSSION

Section 203(a) of the Clean Water Act of 1977 provides for award of a single construction grant for the combination of Step 2 and Step 3 work for construction of treatment works for communities with populations of 25,000 or less and an estimated total Step 3 construction cost of $2,000,000 or less ($3,000,000 or less in States with unusually high costs of construction as determined by the Administrator). The effect of this provision on construction grant funds is to obligate the funds for both design and construction at the time of award of the Step 2+3 grant.

III. POLICY

Municipal applicants that meet the minimum requirements set forth in this memorandum are eligible for award of a Step 2+3 construction grant, and the Regional Administrators are authorized to make such an award upon their determination that these requirements have been satisfactorily met.

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In most cases, separate contracts are entered into for Step 2 and for Step 3 work. A grantee may continue to do so when it receives a Step 2+3 grant. A grantee is not required to enter into a single contract for preparation of plans and specifications along with construction when it receives a Step 2+3 grant.

IV. MINIMUM REQUIREMENTS

EPA Regional Offices will review all Step 2+3 applications for compliance with the following:

1. Population. The population of the applicant municipality must be 25,000 or less as determined by most recent United States Census information.

2. Cost. The total estimated Step 3 construction cost of treatment works necessary to comply with the requirements of the Clean Water Act of 1977 must not exceed $2,000,000 (the cost is exclusive of supporting costs such as technical or administrative services) or $3,000,000 in States determined by the Deputy Assistant Administrator for Water Program Operations to have unusually high costs of construction. At the present time, Alaska, California, Hawaii, Illinois, Minnesota and New York are so designated. Based upon Needs Survey standard cost curves, cost in these States were determined to be more than one standard deviation from the norm.

3. Priority Certification. The States must provide priority certification for the combined Step 2 and 3 project. Projects which appear on an approved priority list for Step 2 funding but not for Step 3 funding are not eligible for a Step 2+3 award. States may amend their project priority list to provide priority for the combined steps; however, such amendments must be consistent with the approved State priority system.

The total amount of the Step 2+3 award must derive from the current State allocation.

V. GRANT CONDITIONS

Step 2+3 grants are subject to all requirements that apply to separate Step 2 and Step 3 grants except that only a single application is required and plans and specifications are not required prior to grant award. Additional requirements of a Step 2+3 grant award are:

1. That the grantee identify and maintain a firm schedule for the submission of construction plans and specifications, suitable for bidding purposes, Operation and Maintenance Manual, and an approvable user charge/industrial cost recovery system (UC/ICR); and

2. Plans and specifications and the UC/ICR systems must be submitted and approved in writing by the Regional Administrator prior to advertisement for bids for the Step 3 construction work; and

3. The cost of all Step 3 construction work initiated prior to approval of plans and specifications shall be disallowed with the exception of the cost of those items specifically authorized in accordance with procedures established under §35.925-18(b) of the current construction grant regulation.

VI. IMPLEMENTATION

States are to be advised at once of the Agency's policy with regard to this subject area and are to be requested to begin immediately reviewing individual grant applications to implement the requirements set forth above. This policy shall not apply to Step 2 grant applications received by the Regions prior to the effective date of this PRM.

GPO 927 009

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 13 1978

OFFICE OF WATER AND HAZARDOUS MATERIALS

Construction Grants
Program Requirements Memorandum
PRM No. 78-8

SUBJECT: Rejection of All Bids: Guidance for EPA Concurrence Function

FROM: John T. Rhett
Deputy Assistant Administrator
for Water Program Operations (WH-546)

Joseph M. Zorc
Assistant General Counsel, Grants (A-134)

TO: Water Division Directors (I-X)
Regional Counsels (I-X)

PURPOSE:

The purpose of this PRM is to set forth a revised Agency procedure for handling a proposed rejection by a grantee of all bids on Step 3 projects.

POLICY:

It is the policy of the Environmental Protection Agency that procurement for Step 3 construction contracts will be undertaken in a manner to best achieve free and open competition. 40 CFR § 35.936-3. Achievement of that Federal interest requires a standard which inhibits rejection of all bids and resolicitation. While the Environmental Protection Agency regulations provide that a grantee may reserve the right to reject all bids [40 CFR § 35.938-4(h)(2)], the exercise of that right is contingent upon a grantee's demonstration of good cause for that proposed action. Any good cause demonstration must reflect that the public interest is best served by rejection of all bids, considering applicable Environmental Protection Agency requirements. Additionally, the absence of good cause for rejection of all bids is incompatible with the good faith efforts of all associated parties within the grants process as well as self-defeating in terms of local water pollution abatement efforts.

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DISCUSSION:

The Environmental Protection Agency has established a concurrence function, regarding a grantee's proposed rejection of all bids on Step 3 construction grant projects, to determine whether adequate good cause is demonstrated. The following criteria are representative of circumstances in which good cause for rejection of all bids may be found:

(1) The specifications are ambiguous, inadequate, restrictive, or otherwise deficient and an addendum to the original invitation for bids is no longer possible.

(2) The needs of the grantee have changed and the change could not be imposed upon bidders consistent with applicable procurement requirements.

(3) The specification requirement(s) is(are) determined not to be necessary.

(4) The bids received indicate that the grantee's quality requirements were overstated.

(5) The amounts of all acceptable bids (i.e., responsive and responsible) are reasonable but the grantee is unable to fund the non-Federal share of project costs associated with the lowest acceptable bid (variables to consider, in this regard, are the financial capability of the grantee, the dollar amounts of the bids and their percent over the engineer's estimate).

(6) The amounts of all otherwise acceptable bids (i.e., responsive and responsible) are unreasonable. This is an obvious matter for subjective judgment including some deference to the procuring entity and concerns various factors among which is the validity of the engineer's estimate.

(7) The bids received failed to provide sufficient competition to insure fair prices.

(8) The bids:

(a) were not independently arrived at in open competition;

(b) were collusive; or

(c) were submitted in bad faith.

(9) Applicable Federal law or policy (for example, the National Environmental Policy Act, 42 U.S.C. § 4321 et seq.) requires delay or further study of the project.

Good cause for rejection of all bids may not be found where the following is evidenced:

(1) Litigation is instituted concerning contract award, although litigation may prove a proper ground for rejection of all bids where prolonged.

(2) The specification requirements are relaxed by a grantee and the relaxation would not materially affect competition and would result in only minor savings.

(3) The invitation for bids contained omissions, errors or ambiguities which did not adversely affect competition, if:

(a) award would result in a binding contract concerning all material requirements;

(b) performance would satisfy the needs of the grantee; and

(c) the rules of formal advertising, as contained in Agency regulation, or fundamental principles of procurement necessary to insure free and open competition, would not be violated.

(4) A local or in-State bidder has not submitted the low bid.

GRANT ELIGIBILITY:

Nothing in this PRM prohibits a Regional Administrator, in recognition of a paramount Federal interest, from limiting the amount of grant assistance on any resolicitation to the Federal share of the lowest bid which could have been accepted by a grantee, or from requiring bid rejection.

PROCEDURE:

The above criteria should provide sufficient guidance to permit each Regional Water Division to establish procedures for review of proposed rejections of all bids and concurrence or nonconcurrence on the part of the Agency. Additional review by Headquarters, on a case-by-case basis, is not a requirement for the performance of the Agency concurrence function and generally need not be sought. Advice must be requested from Regional Counsels in matters concerning rejection of all bids. Headquarters should be involved in cases which concern issues of policy definition. A copy of the Regional Office memorandum or other record of each concurrence/nonconcurrence will be forwarded to both the Headquarters Office of Water Program Operations, Municipal Construction Division (WH-547) and the Assistant General Counsel, Grants (A-134).

Generally, after rejection of all bids the plans and specifications or bidding documents will require modification to assure the correction of the circumstances which led to rejection. In no case will negotiation with a low bidder be utilized in lieu of rejection of all bids and readvertising in order for the grantee to get within budget.

Cancellation:

This PRM cancels Harold P. Cahill's memorandum of September 1, 1976, (subjet: "Rejection of Bids on Step III Construction Grant Projects:), and that of Jack Washburn, dated November 6, 1976, (subject: "Headquarters Concurrence with Regional Offices' Recommendation on Rejection of Bids by Grantees"). The policy and procedures established in this memorandum are effective immediately.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 3 1978

OFFICE OF WATER AND HAZARDOUS MATERIALS

Construction Grants
Program Requirements Memorandum
PRM # 78-9

SUBJECT: Funding of Sewage Collection System Projects

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Regional Administrators
Attn: Water Division Directors

I. PURPOSE

This memorandum supersedes Program Requirements Memorandum (PRM) No. 77-8, on construction grant funding of sewage collection system projects and amends that policy in accordance with P.L. 95-217. This memorandum sets forth guidance for rigorous review of grant applications to ensure that proposed projects meet the established requirements of both P.L. 92-500 and P.L. 95-217, plus the construction grant regulations.

II. DISCUSSION

Sewage collection system projects may be grant eligible projects under P.L. 92-500 (the Act). Eligibility is limited, however, by Section 211 of the Act which provides for funding of collection systems only (1) for the replacement or major rehabilitation of an existing collection system or (2) for new collection systems in existing communities.

Sewage collection systems are defined in 40 CFR §35.905-19 as:

> For the purpose of §35.925-13, each, and all, of the common lateral sewers, within a publicly-owned treatment system, which are primarily installed to receive wastewaters directly from facilities which convey wastewater from individual structures or from private property, and which include service connection "Y" fittings designed for connection with those facilities. The facilities which convey wastewater from individual structures or from private property to the public lateral sewer, or its equivalent, are specifically excluded from the definition, with the exception of pumping units, and pressurized lines, for individual structures or groups of structures when such units are cost-effective and are owned and maintained by the grantee.

The eligibility of sewage collection system projects is further defined in 40 CFR §35.925-13, which reads:

> That, if the project is for, or includes sewage collection system work, such work (a) is for replacement or major rehabilitation of an existing sewer system pursuant to §35.927-3(a) and is necessary to the total integrity and performance of the waste treatment works servicing such community, or (b) is for a new sewer system in a community in existence on October 18, 1972, with sufficient existing or planned capacity to adequately treat such collected sewage. Replacement or major rehabilitation of an existing sewer system may be approved only if cost-effective and must result in a sewer system design capacity equivalent only to that of the existing system plus a reasonable amount for future growth. A community, for purposes of this section, would include any area with substantial human habitation on October 18, 1972. No award may be made for a new sewer system in a community in existence on October 18, 1972, unless it is further determined by the Regional Administrator that the bulk (generally two-thirds) of the flow design capacity through the sewer system will be for waste waters originating from the community (habitation) in existence on October 18, 1972.

The above sections of the EPA regulations implement Section 211 of P.L. 92-500.

Section 36 of P.L. 95-217 amends Section 211 of P.L. 92-500 to preclude use of the population density criterion in PRM 77-8 as a test of grant eligiblity for collector sewer projects but permits use of the criterion for evaluating alternatives. A one household per two acre density criterion may be used only for identifying less closely populated areas where individual or other small wastewater treatment systems are likely to be more cost-effective than collector sewers and thus must be evaluated in detail if collector sewers are proposed for such areas. Such use of the population density criterion should assist with and simplify the cost-effectiveness analysis for collector sewer projects.

All treatment works funded under the Construction Grants Program must be cost-effective to comply with the requirements of the Acts. Treatment works are defined in Section 212 to include sewage collection systems. EPA cost-effectiveness requirements are found in 40 CFR §35.925-and in Appendix A to 40 CFR, Part 35.

Public disclosure of costs is a fundamental prerequisite for all grants projects, including collection systems. Program Requirements Memorandum 76-3, "Presentation of Local Government Costs of Wastewater Treatment Works in Facility Plans," August 16, 1976, requires that cost information be presented at all public hearings held on facility plans

after January 2, 1977. However, public hearings were held on many collection system projects prior to this date. Special measures are necessary to ensure the public is aware of the cost implications of collection systems prior to their approval.

The following policy is to be followed in preparing future grant applications for collection system projects. This policy supplements all existing Agency regulations and policy statements. It provides guidance for more rigorous review of grant applications to ensure that proposed projects meet the established requirements of the law and regulations. Compliance with this policy will help to assure that only grant eligible and cost-effective collection system projects are funded by EPA.

III. Policy

EPA policy on the funding of sewage collection systems is as follows:

A. Substantial human habitation

New collector sewer projects are eligible for funding only in a community in existence on October 18, 1972, with sufficient existing or planned capacity to adequately treat such collected sewage. A community qualifying for Federal grant assistance to construct a collector sewer system may be a geographic or jurisdictional area that is smaller than the jurisdiction of the municipality applying for the treatment facility grant. The Title II regulation states in Section 35.925-13 that a community would include any area with substantial human habitation on October 18, 1972. The bulk (generally two-thirds) of the flow design capacity through the sewer system is to be for wastewaters originating from the habitation exsting on October 18, 1972.

The Agency policy is that areas to be served by new collector sewer projects must meet the requirement for "substantial human habitation." Habitation existing as of October 18, 1972, should be evaluated block by block or, where typical city blocks do not exist, by areas of five acres or less to determine if it is substantial. Collector pipes designed primarily to serve blocks or five acre areas without substantial human habitation as of October 18, 1972, would not be eligible for grant assistance.

B. Cost-effectiveness

New collector sewers must be proven in the facility plan to be necessary and cost-effective in addition to being eligible under the "substantial human habitation" and the two-thirds rule requirements.

New collector sewers should be funded only when the systems in use (e.g., septic tanks or raw discharges from homes) for disposal of wastes from the existing population are creating a public health problem, contaminating groundwater, or violating the point source discharge requirements of the Act. Specific documentation of the nature and extent of health, groundwater and discharge problems must be provided in the facility plan, Where site characteristics are considered to restrict the use of on-site systems, such characteristics, (e.g., groundwater levels, soil permability, topography, geology, etc.) must be documented by soil maps, historical data and other pertinent information.

The facility plan must also document the nature, number and location of existing disposal systems (e.g., septic tanks) which are malfunctioning. A community survey of individual disposal systems is recommended for this purpose, and is grant eligible.

Where the population density within the collection system area is less than 1.7 persons per acre (one household per two acres), collector sewer projects shall be considered non-cost-effective unless a severe pollution or public health problem is specifically documented and collector sewers are shown to be clearly less costly than any of the alternatives for sparsely populated areas as cited below.

In addition, the facility plan must demonstrate, where population density is less than ten persons per acre, that alternatives are less cost-effective than new gravity collector sewer construction and centralized treatment. Such alternatives are cited in the previous Administrator's memorandum of December 30, 1976, subject: "Encouraging Less Costly Wastewater Facilities for Small Communities."

The alternatives to be evaluated include the following:

--measures to improve operation and maintenance of existing septic tanks, including more frequent inspections, timely pumpouts and prohibition of garbage grinders.

--new septic tanks.

--holding tanks and "honey wagons."

--various means of upgrading septic tanks, including mounds, alternate leaching fields and pressure sewers plus ponds or other small treatment facilities.

--other systems to serve individual households or a cluster of households. Such systems include, for example, wastewater separation, water conservation and recycle systems where feasible.

The facility plan, where applicable, must examine alternatives such as limited sewer service for a portion of a community. For example, septic systems work very well in many small towns except in one isolated area such as a business district where open space for adequate on-site disposal is not available.

The collection system shall not afford capacity for new habitations or other establishments to be located on environmentally sensitive lands such as wetlands, floodplains or prime agricultural lands. Moreover, the proposed collection system must conform with approved 208 plans and air quality plans, Executive Orders on Wetlands and Floodplains, and Agency policy on wetlands.

C. Public disclosure of costs

All projects, including collection systems, on which public hearings were held after January 2, 1977, must comply fully with the requirements of Program Requirements Memorandum 76-3 prior to approval.

Agency policy is to ensure public disclosure of the costs of any collection system projects where a public hearing was held on or before January 2, 1977. Such disclosures shall take the form of a prominently published notice in a local newspaper, and the cost is grant eligible.

The notice shall include the estimated monthly charge for operation and maintenance, the estimated monthly debt service charge, the estimated connection charge and the total monthly charge to a typical residential customer for the new collection system being funded and any other associated wastewater facilities required. Such associated facilities would include new treatment capacity needed to handle the flows from the new collection system.

The charges may only be rough estimates, and may be presented as a range of possible costs when major unknowns exist, such as whether or not substantial parts of the project are grant eligible.

IV. Implementation

The States are to be advised of the issuance of this amended policy at once. All pending and future grant applications for collection system projects or projects containing collection systems are to be reviewed for compliance with this policy.

V. References

A. Sections 201, 211, 212, P.L. 92-500 and Section 36 of P.L. 95-217.

B. 40 CFR §§35.905-19, 925-7, 925-13, Appendix B.

C. PRM 76-3, "Presentation of Local Government Costs of Wastewater Treatment Works in Facility Plans," August 16, 1976.

D. Memorandum to Regional Administrators from Russell E. Train, "Encouraging Less Costly Wastewater Facilities for Small Communities," December 30, 1976.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 17 1978

Construction Grants
Program Requirements Memorandum
PRM No. 78-10

SUBJECT: Infiltration/Inflow Program Guidance

FROM: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546) John T Rhett

TO: Regional Administrators (I-X)
ATTN: Water Division Directors

Purpose

This program requirements memorandum provides an optional procedure for implementing the requirements of the infiltration/inflow (I/I) program. This optional procedure is intended to substantially reduce the seasonal dependency of the I/I work, which is commonly done during high groundwater conditions; simplify the review of I/I reports; expedite project completion; and increase the reliability of results used in determining project size and design. Specifically, the memorandum provides:

1. a technique for rapidly screening out non-excessive I/I projects;

2. a simplified scope of work for I/I investigations; and

3. a mechanism for performing sewer testing and repairing concurrently.

Discussion

In accordance with Section 201(g)(3) of the Federal Water Pollution Control Act Amendments of 1972, 40 CFR §35.927 of the construction grant regulations requires that the grant applicant determine whether excessive I/I exists. A cost-effectiveness analysis is required by §35.927-1(b) for determining the possible existence of excessive I/I. If the analysis demonstrates the possible existence of excessive I/I, a sewer system evaluation survey (SSES) must be completed before proceeding with project design (see §§35.927-1(c) and 35.927-1). Details of this program are described in EPA's "Handbook for Sewer System Evaluation and rehabilitation."

Increasing evidence from field experience to date strongly indicates that certain modifications to the I/I program in the following areas would be of benefit:

1. The scope of work in the investigative phase is too complex and over-emphasized. As a result, I/I studies have been excessively costly and time consuming, while the actual rehabilitation has often been delayed for years.

2. The regulatory review process is time consuming and extremely difficult because of the subjective nature of the cost-effectiveness study in the I/I analysis and difficulty in accurately determining the scope of work in the sewer system evaluation survey (SSES). As a result, sewer systems having excessive I/I may not be identified for repair in some cases and contract costs for SSES work may be unnecessarily high in others.

3. The redundant requirement for sewer line cleaning and internal inspection for both SSES and rehabilitation is costly and can be alleviated by allowing sewer grouting and minor replacement to be performed under a Step 1 grant.

4. Elimination of I/I sources based on visual inspection may not be effective. More specifically, the present approach may simply cause that portion of I/I supposedly eliminated to migrate to other weak joints or create new I/I sources which were not leaking initially. In fact, this phenomenon has been verified by case study reports and field observations. To address this concern more comprehensively, the effectiveness of the I/I program will be evaluated through a proposed contract which is presently being processed.

In 1977, a Streamlining Committee comprised of representatives from the Regions and Headquarters identified I/I as one of the subjects to investigate. As a result, in July, a simplified I/I procedure was recommended by the Streamlining Committee.

The procedure described in this memorandum will substantially resolve the specific points discussed above. Pending the results of the proposed I/I study and field experience gained from the use of these procedures, it is possible that additional improvements to the program will also be made in the future.

Policy

1. The use of the procedure described in this PRM is optional. However, because the procedure is simple and may result in a more effective I/I program, its application should be encouraged whenever applicable.

2. Based on the results of an EPA contract study in 1975 and cost analysis data, it is reasonable to assume that a maximum infiltration rate of less than 1500 gallons per day per inch of pipe diameter per mile of the sewer pipe (gpd/in/m) is not economical to rehabilitate and therefore is non-excessive. The 1500 gpd/in/m criterion is not to be used as an infiltration allowance in the hydraulic design of a new sewer system.

3. When the infiltration rate is above 1500 gpd/in/m, a cost-effectiveness analysis is required to determine if further investigation of the problem is warranted.

4. For purposes of the I/I analysis, the 1500 gpd/in/m criterion should be applied to the infiltration rate determined for the entire sewer system. Accordingly, flow charts for the treatment plants may be used as a basis for this I/I determination. For large systems, especially where flow charts at the pump stations are available or where specific problem areas are known or suspected by the grantee, a subsystem analysis on those particular areas is generally warranted.

5. The grantee may perform minor sewer rehabilitation (excluding sewer separation) under the Step 1 grant process subject to State and EPA approval. An amendment to the Step 1 grant will be required for EPA participation in the cost of minor sewer rehabilitation. The extent of the minor rehabilitation which may be performed under this provision is subject to Regional judgement and must be consistent with the overall scope of the Step 1 grant. Minor rehabilitation may include, for example, elimination of excessive infiltration by means of concurrent pressure testing and grouting or correction of a limited number of obviously excessive inflow sources by replacing manhole covers, raising the grade of the manhole access, disconnecting cross connections, structural repairs or replacement of a limited number of sewer sections. However, rehabilitation work which should be a part of the grantee's

normal operation and maintenance responsibilities should not be included within the scope of a treatment works project. (See the analogous requirement of §35.927-3(a).)

6. Any rehabilitation work to be performed under a Step 1 grant which is not accomplished through force account work in accordance with §30.645, must be procured through a competitive bidding process in compliance with all of the applicable requirements of §s35.938 through 35.938-9 and 35.939 of the Construction Grants Regulations (Subpart E of Part 35), the statutory requirements referenced in §s30.415 through 30.415-4 and other applicable provisions of the General Grant Regulations (Part 30). In cases where the concurrent sewer testing and sealing technique is used, the bidding package should include sewer line cleaning, pressure testing of sewer joints, and grouting.

7. A positive indication of an active sewer maintenance program will be required before the Step 3 grant is awarded. The program should be prepared after the sewer rehabilitation is completed and should provide a schedule for eliminating any remaining excessive I/I including those inflow sources originating from service lines which are cost effective to eliminate.

8. The provisions of this memorandum are not applicable to inflow and overflows from combined sewers; issues related to inflow and combined sewer overflows are addressed separately in PRM #75-34 (PGM #61).

Implementation

The conditions described in this PRM and the attachment are applicable for any appropriate Step 1 projects.

Attachments

Procedure

The following procedure supplements the existing EPA handbook entitled "Handbook for Sewer System Evaluation and Rehabilitation," MCD-19, dated December 1975.

I. I/I Analysis

a. When the flow meters at the treatment plants are determined to be well maintained and acceptably accurate, the quantity of I/I should be determined on the basis of plant flow charts in conjunction with the calculated theoretical base flow. A subsystem approach for determining I/I conditions may be advisable in large systems, especially where flow records for pump stations are available or where specific problem areas are known or suspected by the grantee.

b. When the maximum infiltration rate based on the highest weekly (7 days) average within a twelve month period is less than 1500 gallons per day per inch of pipe diameter per mile of sewer, including service laterals, the infiltration is considered non-excessive. This should normally be based on the total system flow.

c. For infiltration rates greater than 1500 gpd/in/m, a cost-effectiveness study is required for determining the possible existence of excessive infiltration.

d. For separate sanitary sewers, possible existence of excessive inflow should be determined by performing a cost-effectiveness analysis.

e. The results obtained from an economic study in the I/I analysis phase are, at best, preliminary and subject to further verification when possible excessive I/I exists. Therefore, the cost-effective analysis should be simple and brief, and additional data should not be routinely required.

f. A report summarizing the results based on the above analysis is required by EPA. The report should provide flow data necessary to substantiate the report's conclusions. When I/I is determined to be possibly excessive, the report should include, in addition to flow data, a detailed study program and estimated costs for performing such a study based on subsection (a)-(f) of section II below.

II. Subsystem Evaluation and Rehabilitation

The following procedure should be used for subsystem evaluation and rehabilitation.

a. Divide the system into subsystems or mini-systems and monitor the flow in each subsystem.

b. Compare the infiltration rate with the infiltration allowance of 1500 gpd/in/m and determine whether infiltration is excessive in accordance with subsections (b) and (c) of section I above (the I/I Analysis).

c. Repeat subsection (d) of section I above for determining inflow.

d. For those subsystems where I/I is determined to be excessive, flow isolation, smoke testing and physical inspection should be used to further define the I/I problems. Again, determination of infiltration should be based on the procedure described under subsections (b) and (c) of section I above.

e. For those inflow sources identified by means of smoke testing, a cost-effectiveness analysis will be performed based on various categories (e.g., catch basin, house drain, manhole cover, etc).

f. Submit a report summarizing the results of the study required by subsection (a) - (e) of this section. The report should also include: (1) supporting data; (2) a proposed rehabilitation program; (3) a detailed cost estimate for the proposed rehabilitation program; and (4) bidding specifications for the proposed rehabilitation program.

For large sewer systems where the I/I problem is generally more complex, this report can be submitted prior to completion of the bidding documents to avoid project delays. In these cases, bidding documents should be prepared during the time that the report is being reviewed by the State and EPA and submitted pending the preliminary finding of this review.

When concurrent sewer testing and sealing techniques are used, the bidding package should include sewer line cleaning, pressure testing and grouting. When applicable, the bidding document should also include other sewer repairs such as manholes and cover, structure, etc. Bidding prices should be specified in unit costs (e.g., price per foot of sewer cleaned, price per joint of sewer pressure tested or chemically grouted). Any rehabilitation work to be performed under the above bidding documents or bidding package which is not accomplished through force account work in accordance with §30.645, must be procured through a competitive bidding process in compliance with all of the applicable requirements of §§35.938 through 35.938-9 and 35.939 of the Construction Grants Regulations (Subpart E of Part 35), the statutory requirements referenced in §§30.415 through 30.415-4 and other applicable provisions of the General Grant Regulations (Part 30).

The recommended rehabilitation program should be in accordance with the following: (1) whenever applicable, the techniques providing concurrent pressure testing and sealing of individual sewer joint should be used for eliminating infiltration; and (2) excessive inflow sources originating from public and private sewers should be identified separately. Grant eligibility pertaining to the costs for correcting inflow sources is limited to those associated with the correction of inflow sources originating from public sewers only.

g. To ensure that the concurrent pressure testing and sealing techniques are effectively applied, infiltration problems must be isolated to that section or those sections of the sewer within each subsystem which are actually subject to excessive infiltration. Further, sewer grouting should be limited to those sections of the sewer which are structurally sound and which have service line connections in good condition. Accordingly, prior to the actual testing and sealing process, a brief internal inspection should be done by pulling the television camera quickly through the sewer line. When it is determined that rehabilitation methods other than grouting are required (i.e., structural repair), this should be recorded and the sewer identified. The testing and sealing process should not be performed in that section.

h. Subject to the eligiblity requirements of 40 CFR §35.927-3(a), which prohibits the funding of rehabilitation which should be a part of the applicant's normal operation and maintenance responsibilities, structural repairs and sewer replacement may be performed under a Step 1 grant when approved by the State and EPA. However, when such repairs are required for a substantial portion of the sewer system, especially in cases where public hearings are warranted, the grantee should propose that repair work be performed at later dates and perhaps as part of Step 2 or Step 3.

III. Sewer System Maintenance

a. Following the rehabilitation phase, a final analysis on the I/I conditions should be performed by means of plant flow charts. When available, pump stations flow data or single point flow monitoring at the treatment plant should be used. The analysis should be simple and brief to allow a determination of the total quantity of non-excessive I/I remaining in the system. In addition, the analysis should be performed based on flow data obtained during groundwater conditions comparable to those when the initial I/I condition was determined.

b. A positive and realistic maintenance program which addresses the following should be submitted to EPA.

(1) The timely elimination of all excessive inflow sources originating from private sources which can be cost-effectively removed. An acceptable timetable should specify the elimination of these inflow sources before the completion of the treatment works construction;

(2) The establishment of continuing sewer maintenance programs to ensure that the sewer systems will not be subject to excessive I/I in the future.

Guidelines for preparing a sewer maintenance program will be prepared and published in the near future. In the interim, an acceptable sewer maintenance program should provide (1) a comprehensive plan which incorporates both preventive and corrective measures, and (2) a realistic schedule for eliminating inflow sources originating from private sewers and roof drains.

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